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WASHINGTON, D. C.

May, 1938.

Accidents.

America's most dangerous business. By Webb Waldron. Country Home. v.62, no.3. March, 1938. p.24, 36. Farm accidents annually exceeds that of coal mines, steel mills, factories and all industry put together. Preventable accidents blunder into more than 100,000 farm homes each year, leaving in their wake, 4,500 dead, 8,600 hopeless cripples, and more than 90,000 maimed and injured.

Farm carelessness is always costly. Wallaces' Farmer. v.63, no.9. April 23, 1938. p.9.

5,658,500 - one year's home accident toll. American Home. v.19, no.5. April, 1938. p.39-40.

Safety of consumers in rural areas. By H.G. Taylor. London, British electrical & allied industries research association, 1936. 46p. (British electrical and allied industries research association. Technical report. Reference F/T 102.)

Agriculture.

Agricultural extension service, Missouri college of agriculture; Annual report for 1937. Columbia, Missouri, 1938. 55p. University of Missouri. Agricultural experiment station. Circular 378. Agricultural engineering, p.28-29.

Annual report of extension service, Rhode Island, 1937. Kingston, R.I., 1938. 13p. Rhode Island state college. Extension service. Bulletin 75.

Arizona's changing agriculture; Forty-eighth annual report for the year ending June 30, 1937. University of Arizona. College of agriculture, Agricultural experiment station. Tucson, Arizona, 1937. 101p. Agricultural Engineering, p. 14-27.

Balanced farming for Delaware - 1938. Washington, U.S. govt. print. off., 1938. 4p. U.S. Department of agriculture. Agricultural adjustment administration. Regional information series.

Balanced farming for Kentucky - 1938. Washington, U.S. Govt. print. off., 1938. 4p. U.S. Department of Agriculture. Agricultural adjustment administration. Regional information series.

Agriculture. (Cont'd)

- Balanced farming for Maryland - 1938. Washington, U.S. Govt. print. off., 1938. 4p. U.S. Department of agriculture. Agricultural adjustment administration. Regional information series.
- Balanced farming for North Carolina - 1938. Washington, U.S. Govt. print. off., 1938. 4p. U.S. Department of agriculture. Agricultural adjustment administration. Regional information series.
- Balanced farming for Virginia - 1938. Washington, U.S. Govt. print. off., 1938. 4p. U.S. Department of agriculture. Agricultural adjustment administration. Regional information series.
- Balanced farming for West Virginia - 1938. Washington, U.S. Govt. print. off., 1938. 4p. U.S. Department of agriculture. Agricultural adjustment administration. Regional information series.
- Cooperation of agriculture and industry. By R.E. Wood. Farm chemurgic journal. v. 1, no.1. September, 1937. p.22-24.
- Crop report for Michigan; Annual crop summary 1937 and crop statistics 1927-1937. Issued by U.S. Department of Agriculture, Bureau of agricultural economics in cooperation with Michigan department of agriculture. Bureau of agricultural industry. Lansing, Mich., 1938. 45p.
- Financing farmers in 1937. Washington, U.S. Govt. print. off., 1938. 24p. U.S. Farm credit administration. Circular A-13.
- Forty-seventh annual report for the fiscal year ended June 30, 1937 of the State college of Washington, Agricultural experiment station. Pullman, Washington, 1937. 89p. State college of Washington. Agricultural experiment station. Bulletin no.354. Division of Agricultural engineering, p.13.
- How the A.A.A. farm program will operate in 1938. Washington, U.S. Govt. print. off., 1938. 15p. U.S. Department of agriculture. Agricultural adjustment administration. Regional information series. SR leaflet no.202.
- 1938 farm program for Nebraska and South Dakota. Washington, U.S. Govt. print. off., 1938. 4p. U.S. Department of agriculture. Agricultural adjustment administration. Regional informational series.
- Other half of farm problem. By Louis H. Bean. Extension Service Review. v. 9, no.5. May, 1938. p. 69, 80. Relation of agriculture to industry, or what the Secretary of Agriculture has recently called "the other half of the farm problem" assumes increasing importance as the emergency nature of farm legislation develops into a permanent agricultural policy.

Agriculture. (Cont'd)

Part-time farming in the southeast. By R.H.Allen and others. Washington, U.S. Govt. print. off., 1937. 317p. U.S. Works Progress Administration. Division of social research. Research monograph IX.

Recommendations for the agricultural development of Los Angeles county. Los Angeles, Calif., University of California, College of agriculture, Extension service, 1938. 4p. Mimeographed. Report of the findings of eighty farm leaders of Los Angeles county who participated in an Agricultural economic conference held at Pasadena, March 4 and 5, 1938, with the assistance of the Agricultural extension service of the University of California College of agriculture.

Results of experiments conducted at the Dominion experimental station, L'Assomption, Que., 1930 to 1936. Ottawa, Department of agriculture. Dominion experimental farms, 1938. 50p. Cost of operating tractor, p.10-11. Cost of tile draining, p.12.

Rural relief program. By H.A. Wallace. Agricultural Situation. v.22, no.4. April 1, 1938. p.12-13. Two points worthy of special emphasis: 1. Rehabilitation work cannot be carried economically, nor with much hope of permanent results, unless the Government loans are accompanied by a sound system of technical guidance. 2. Although we feel a promising beginning has been made in helping destitute farm families become self-supporting, the job cannot be completed for many years. We are fighting an economic disease which has been neglected for generations; we cannot hope to cure it over night.

Summary of the 1938 A.A.A. farm program, Northeast region. Washington, U.S. Govt. print. off., 1938. 4p. U.S. Department of agriculture. Agricultural adjustment administration. Regional information series.

Third Oxford farming conference, Taylor institution, Oxford, January 4-7, 1938. Papers and discussions. Oxford, Institute for research in agricultural engineering, University of Oxford, n.d., 157p. Note on distributors, by S.F. Wright. p.70-74. Weed control in mechanized farming by Dunstan Skilbeck. p.140-152.

Thirtieth biennial report of the Kansas State board of agriculture for the years 1935 and 1936. Topeka, Kansas state board of agriculture, 1937. 594p. Fort Hays damming attachment for listers. By L.C. Aicher, p.78-82. Farm accidents in Kansas. Board of agriculture survey. p.15-30.

Air Conditioning.

Air conditioning - its recent trends and developments. By Howard E. Degler. Ice and Refrigeration. v. 94, no. 4. April, 1938. p. 279-282. Engineers are taking air conditioning out of the novelty

Air Conditioning. (Cont'd)

class and putting it into the necessity group. Industry needs better trained personnel and better engineered installations. Ice as air conditioning medium provides some definite advantages.

Air conditioning farm buildings. By S.A. Witzel. Hoard's Dairyman. v.83, no.6. March 25, 1938. p.171, 184.

Air distribution from side wall outlets. By D.W. Nelson and D.J. Stewart. Heating, Piping & Air Conditioning. v.10, no.4. April, 1938. p.269-276.

Code of minimum requirements for comfort air conditioning. Heating, Piping & Air Conditioning. v.10, no.4. April, 1938. p.276-278.

Cooling calculations. Domestic Engineering. v.151, no.4. April, 1938. p.49-51, 128. Quick and accurate method of figuring cooling and dehumidifying loads for air conditioning is discussed.

Effect of air conditioning on building design. By A. Warren Canney. Architectural Record. v.83, no.4. April, 1938. p.90-95. Concerned with part that building construction plays in producing comfort, particularly as it involves means for maintaining desirable temperatures of interior surfaces.

Place of ice in air conditioning. By Robert P. Greenleaf. Ice and Refrigeration. v.94, no.5. May, 1938. p.351-354. Discussion of possibilities and characteristics of ice as cooling medium. Description of modern spray type unit. How to obtain ice business in the air conditioning field.

Alcohol Fuel.

Agrol-economic aspects. By W.W. Buffum. Farm Chemurgic Journal. v.1, no.1. September, 1937. p.146-155.

Agrol-scientific aspects. L.M. Christensen. Farm Chemurgic Journal. v.1, no.1. September, 1937. p.134-141.

Information on industrial alcohol. By W.W. Skinner. Revised, Washington, 1938. 17p. Mimeographed. U.S. Bureau of Chemistry and soils. (MC-22)

Motor fuel (Agrol) from farm crops. By Roger Adams. Farm Chemurgic Journal. v.1, no.1. September, 1937. p.132-133.

New potato alcohol plant nearly ready. Idaho Farmer. v.56, no. March 3, 1938. p.13. Located at Idaho Falls, it was financed by the State, although business men of that city contributed \$2,000, donated building site and provided electricity for power. Plant's present capacity will be nine tons of potatoes each eight-hour shift, with a crew of four men. Longer hours will be adopted if necessary to increase output. Time required to divert potatoes into alcohol is 72 hours

Alcohol Fuel. (Cont'd)

Power alcohol. Report by the Commonwealth Fuel Adviser. Australian Sugar Journal. v.29, no.12. March 12, 1938. p.725-726, 739-748.

Proponents of "alky-gas" keep it before Congress. National Petroleum News. v.30, no.12. March 23, 1938. p.12. Four such plans are before the Congress now, three of them products of the past few weeks.

Raw materials for agrol manufacture. By Harry Miller. Farm Chemurgic Journal. v. 1, no. 1. September, 1937. p.141-146.

American Society of Agricultural Engineers.

A.S.A.E. Technical committees, 1937-38. Saint Joseph, Mich., American Society of Agricultural Engineers, 1938. 6p. Mimeographed.

Barns.

Arranging dairy stable. Hoard's Dairyman. v.83, no.6. March 25, 1938. p.179.

Building the dairy barn. By H.B. White. Hoard's Dairyman. v.83, no.6. March 25, 1938. p.169, 185.

Building Construction.

Building cost calculator or estimators hand book. Compiled and edited by J.R. Smith. 2d ed. Lincoln, Neb., 1935. Various paging. Processed. A system for arriving at construction costs by use of tables giving the cost of standard units of construction at varying labor and material costs.

Clay products offer sales opportunities in rich farm market. Brick & Clay Record. v.92, no.4. April, 1938. p.26-28, 30, 32. Increased farm income will expand rural building activities--new developments in clay products meet requirements of farm storage structures--need for planned merchandising program.

Statically indeterminate frameworks. By T.F. Hickerson. Chapel Hill, University of North Carolina press, 1937. 205p. Processed.

Steel units in building construction. By R.H. Driftmier. Agricultural Engineering. v.19, no.4. April, 1938. p.159-160.

Building Materials.

Concrete problems. By W.C. Harrington. New England Homestead. v. 111, no. 9. April 23, 1938. p.11. Farm users must familiarize themselves with recent developments to improve their work.

Plaster and plastering. Washington, D.C., U.S. Bureau of agricultural engineering, Division of structures, 1938. 6p. Mimeographed. U.S. Bureau of agricultural engineering. Information series no.32.

Chemistry, Technical

Chemistry and you. By C.M.A. Stine. Popular Mechanics. v.69, no.1. January, 1938. p.9-16, 132-A, 134-A. Part 2.

Chemistry and you. By C.M.A. Stine. Popular Mechanics. v.69, no.2. February, 1938. p.169-176. Part 3.

What chemurgy means to the West. By J.A. Widtsoe. Farm Chemurgic journal. v.1, no.1. September, 1937. p.82-87. Chemurgy must offer the West aid under five heads: First, present enterprises which convert farmers' products through factory operations for market must be encouraged. Second, many crops have been grown for sometime in West and are known to do well under prevailing conditions. It is problem of future to find new uses for these old crops. Third, many crops not now grown in West will do well under irrigation, perhaps better than under rainfall conditions. These must be tried out and tested for their availability for manufacturing purposes. Fourth, through application of science to agriculture and industry, much of waste which now occurs on western farms may be avoided. Fifth, surplus on western farms must be disposed of profitably.

Combines.

Case combine set-up for 1938. Farm Implement News. v. 59, no. 8. April 21, 1938. p. 32-34. New models include a 6-footer, a motor-lift and an auger-type machine.

Rubber-mounted combine beaner. Farm Implement News. v.59, no.7. April 7, 1938. p.39.

Small combines for the general farm. Southern Planter. v.99, no.5. May, 1938. p.6. Illustrations.

Conservation of Resources.

Improvement and conservation of Oklahoma and Texas range lands. Washington, U.S. Govt. print. off., 1938. 8p. U.S. Department of agriculture. Agricultural adjustment administration. Regional information series.

Improvement of burn out lands in southern Saskatchewan. By E.C. Sackville. Ottawa, Canada, 1938. 12p. Dominion of Canada. Department of Agriculture. Farmers' bulletin 50. Revision pamphlet 114.

1938 Agricultural conservation program bulletin as amended April 16, 1938. A compilation of the provisions of the 1938 Agricultural conservation program effective as of April 16, 1938. Washington, D.C., U.S. Govt. print. off., 1938. 34p. U.S. Department of agriculture. Agricultural adjustment administration.

1938 range conservation program--Western region. Washington, U.S. Govt. print. off., 1938. 4p. U.S. Department of agriculture. Agricultural adjustment administration. Regional information series.

Conservation of Resources. (Cont'd)

Relationship between engineering and agronomic practices in soil and moisture conservation. By Quincy C. Ayres. Agricultural Engineering. v.19, no.4. April, 1938. p.167-169.

Rich land-poor people. By M.R. White, Douglas Ensminger and C.L. Gregory. Indianapolis, 1938. 62p. Mimeographed. U.S. Department of Agriculture. Farm security administration. Region III. Research report no. 1.

Cotton Machinery.

Advancements toward better ginning. By Francis L. Gerdes and Charles A. Bennett. Cotton Ginners' Journal. v.9, no.7. April, 1938. p.9-10, 24, 42.

Engine heat for cotton driers. By C.A. Bennett and V.L. Stedronsky. Cotton Ginners' Journal. v.9, no.7. April, 1938. p.26, 28, 30, 48-49.

If mechanical cotton picker comes. Farm Implement News. v. 59, no.8. April 21, 1938. p. 40 Many uncertainties stand in way of attempt to evaluate effects of successful mechanical cotton picker on labor economy of Cotton Belt. Some of the questions involve length of life of such machine, and acreage it could cover both per hour and per year. Equally uncertain are percentage of cotton left in field, effect of mechanical picking on market value, and probable effects on total cotton acreage. Estimates, based on single-row machine of type similar to those now being used experimentally, assume that machine would make three pickings per year on 80 acres of cotton, that early models would last only five years, that 5 percent of lint and seed would be left in field, and that market value of cotton picked would be lowered 12 percent by trash and discolorations. Overhead costs, on basis of all assumption made, amount to \$3.62 per acre. At 60 cents per hour for tractor and 30 cents per hour for each of two operators, total operating costs are \$4.80 per acre. On land yielding 300 pounds of lint to the acre, these costs per bale would be \$5.77 and \$7.64 respectively. Loss of 5 percent of lint and seed would amount to \$3.71 per bale, at 12 cents a pound for lint and \$35 a ton for seed, while loss in market value from lowered quality would amount to \$6.54. Total costs and losses for mechanical picking would come to \$23.66 per bale, or \$14.84 per acre, the equivalent of \$1.65 per 100 pounds of seed cotton. This may be contrasted with the rate of about \$1.00 per 100 pounds paid for hand picking in the Mississippi Delta in 1936. Improved two-row, twice-over machine having a longer life and requiring only one operator, might lower cost of mechanical picking to around 65 cents per 100 pounds if amount of cotton left in field could be reduced to 3 percent, and loss in value from lowered quality, to 8 percent.

Maintenance of the cylinder and piston. By Orville Adams. Cotton and Cotton Oil Press. v.39, no. 10. March 5, 1938. p. 3-4. Improper operating methods can nullify all scientific improvements built into engine.

Cotton Machinery. (Cont'd)

Mechanical changes in the cotton-textile industry, 1910 to 1936.

By Boris Stern. Monthly Labor Review. v. 45, no. 2. August, 1938. p.316-343.

Present activities in cotton ginning research. By C.A. Bennett and F.L. Gerdes. Cotton and Cotton Oil Press. v. 39, no. 13. March 26, 1938. p. 11-12.

Utilization of waste heat for cotton driers. By Orville Adams. Cotton and Cotton Oil Press. v. 39, no. 12. March 19, 1938. p. 3-4.

Dams.

Bigger than Boulder. Engineering News Record. v. 120, no. 18. p.647-651. Final plans for Shasta dam reveal it as containing 70 percent more concrete than Boulder dam, and as having a height greater than Grand Coulee dam.

Design of rock-fill dams: Discussion. By Paul Baumann, O.W. Peterson and George W. Howson. Proceedings of American Society of Civil Engineers. v. 64, no. 4. April, 1938. p. 837-843.

Report on failure and reconstruction of Marshall creek dam. Washington, D.C., Works progress administration, 1938. 17p. Mimeographed.

Unity dam construction, Burnt River project. Reclamation Era. v. 28, no. 4. April, 1938. p. 60-63.

Delaware River Basin.

Toward unity; A series of addresses presented at the second annual regional conference of the Interstate commission on the Delaware river basin. n.p. Interstate commission on the Delaware river basin, n.d. 72p. Unified control of interstate rivers. By A.E. Morgan. p. 18-28.

Drainage.

Drainage - natural or artificial, but artificial or natural - drainage. By Dave Harker. Indiana Farmers Guide. v. 94, no. 8. April 9, 1938. p. 3, 19.

Drainage works across canals. By Pandit K.R. Sharma. Indian Engineering. v. 103, no. 2. February, 1938. p. 49-50.

Report on drainage districts by the division of waterways, 1937. Springfield, Ill. Division of Waterways. Department of public works and buildings, 1937. 52p.

Water planning and policy for drainage basins of the U.S. U.S. National resources committee. Washington, U.S. Govt. print. off. 1938. 40p.

Drainage. (Cont'd)

Water planning and policy for drainage basins of the U.S. National resources committee. Washington, U.S. Govt. print. off., 1938. 40p.

Electric Wiring.

Wiring the dairy barn. By W.C. Harrington. Amherst, Mass., 1938. 7p. Mimeographed. Massachusetts state college. Engineering extension series no.10. Revised April 1, 1938.

Wiring the poultry house. By W.C. Harrington. Amherst, Mass., 1938. 8p. Mimeographed. Massachusetts, Engineering extension series no.67.

Electricity-Distribution.

Electric light and power industry in the United States, year 1937. New York, Edison Electric institute, 1938. 34p. Statistical bulletin number 5.

R.E.A. program makes progress. By Oscar W. Meier. Agricultural Engineering. v. 19, no. 4. April, 1938. p. 163-164. R.E.A. is now advancing funds to pay for accepted construction at rate of about $1\frac{1}{4}$ million dollars per week. Ninety-four projects have been energized in whole or in part. As of above date, average cost of construction on completed mileage was \$946.20 per mile. This figure includes transformers, meters, engineering and legal fees, even to cost of obtaining easements.

When will the high-line reach you, if ever? By Frank J.G. Duck. Breeder's Gazette. v. 103, no. 3. p. 16-19. Given cost, performance and net results of individual electric plants.

Electricity on the Farm.

Developing increased use of electricity among rural customers. By D.E. Karn. Edison Bulletin. v. 6, no. 4. April, 1938. p.142-144, 150.

Electricity at work on the farm. By Joe A. Elliott. Southern Agriculturist. v. 68, no. 4. April, 1938. p. 18.

Meters tell some dairy farm costs. By R.U. Blasingame. Electricity on the Farm. v. 11, no. 5. May, 1938. p. 12-13.

Unusual rural uses on West Coast. By B.D. Moses. Electrical World. v. 109, no. 17. April 23, 1938. p.114.

Where rural electrification is most ambitious. Implement & Machinery Review. v. 63, no. 755. March 1, 1938. p.1084-1086.

Erosion Control.

Erosion and conservation in the West. Engineering News-Record. v.120, no. 14. April 7, 1938. p.512. Some observations in Arizona and New Mexico on highway stream construction and Conchas dam.

Erosion and its control in Oklahoma territory. By Angus McDonald. Washington, U.S. Govt. print. off., 1938. 48p. Bibliography. U.S. Department of agriculture. Miscellaneous publication no.301.

Research contributions to wind erosion control By H.H. Finnell. Soil Conservation. v.3, no.10. April, 1938. p.255-257.

Soil erosion by wind in Kansas. Report of the Kansas state board of agriculture, December, 1937. Topeka, Kan., 1937. 86p.

Soil erosion in relation to rubber estates. By T.E.H. O'Brien. The Planter. v. 19, no. 2. February, 1938. p. 66-67, 68-69.

Farm Buildings.

New farm buildings. The Farmer. v.56, no.6. March 12, 19, 1938. p.20. Illustrations.

Farm Machinery and Equipment.

Bankers and farm machinery. By W.C. MacFarlane. Farm Implement News. v.59, no.7. April 7, 1938. p.36-37.

"Bird cage" walnut picker makes harvesting easy. Popular Mechanics. v.69, no.1. January, 1938. p.76. Cage is made of galvanized wire, mounted on end of pole so that stooping is unnecessary. Triangle of three small coil springs picks up nuts and they are removed through small door in side of cage.

Down machinery row at the Jersey farm show. By Douglass Gray. New Jersey Farm & Garden. v. 9, no. 1. January, 1938. p.8-9.

Farm machinery. By Frank H. Slade. Rural Electrification and Electro-Farming. v.13, no.154. March, 1938. p.186-187.

Farm machinery men discuss their problems. By J.H. Currie. Pacific Rural Press. v.135, no.4. January 22, 1938. p.94, 107.

Furrow seeder and distributor: History of development and summary of operations. Prepared by C.G. Filler. Knoxville, Tenn., Tennessee valley authority. Department of agricultural industries, 1938. 12 unnumbered leaves. Typewritten.

Harvester from old binder. By I.W. Dickerson. Wisconsin Agriculturist & Farmer. v. 65, no. 7. March 26, 1938. p.13. Gives working drawing.

Farm Machinery & Equipment. (Cont'd)

How farm equipment serves agriculture. By Sydney G. McAllister.

Farm Machinery & Equipment. no. 1850. February 15, 1938. p.12.

Machinery aids civilized living. By Sydney G. McAllister. Northwest

Farm Equipment Journal. v.52, no.4. April, 1938. p.23.

Making farm work easier. By Harry G. Davis. The Farmer. v.56,

no.5. February 26, 1938. p.5, 17. How machinery is aiding the family-operated farm.

Mechanical corn harvester picks ears from two rows. Popular Mechanics.

v.69, no.1. January, 1938. p.71. Corn is forced between two rollers which squeeze off ears and drop them on an elevator which loads wagon. Average farm hand can pick 60 bushels a day. This mechanical picker harvests 800 bushels a day.

New machines provide greater efficiency. By Jack Klein. California

Cultivator. v. 85, no. 7. March 26, 1938. p.195, 215.

1938 Buyer's guide. Chicago, Ill., Farm Implement News, 1938. 378p.

Potato cleaner and sorter has set of rubber "fingers." Popular

Mechanics. v. 69, no. 1. January, 1938. p.38. Designed with rubber "fingers" a new machine cleans and sorts potatoes automatically. Rubber fingers are mounted on pairs of disks which are set farther apart as the potatoes travel along the assembly, causing the potatoes to fall into different hoppers, according to size. Fingers, of special rubber, clean tubers without injury.

Record sales of farm equipment shown by Census Bureau's 1937 report.

Farm Implement News. v.59, no.9. May 5, 1938. p.28-33.

So shall ye reap. By Ralph W. Poulton. Breeder's Gazette. v.103,

no.4. April, 1938. p.16-17, 22-23.

Time to calibrate seed plates. By L.W. Hurlbut. Implement & Tractor.

v. 53, no. 7. April 2, 1938. p.24, 34. Planting efficiency depends upon seeding devices and bottoms. When these two units are not in proper adjustment, operator cannot do good work.

Tractor, combine sales break all records. Implement Record. v.35,

no.4. April, 1938. p.16-17.

Unbending backs behind the harrow. Wisconsin Agriculturist & Farmer.

v.65, no.7. March 26, 1938.

What farm machines have done for all Americans. By Sydney G. McAllister.

Farm Implement News. v.59, no.7. April 7, 1938. p.24.

Farm Motors.

Power economy of electric motors. By J.V. Hunt. Better Farm Equip-

ment and Methods. v.10, no.8. April, 1938. p.4-5.

Farm Shop.

Buildings and equipment for vocational agriculture instruction.
By M.R. Wilson. Manhattan, Kansas, 1938. 32p. Kansas state college. Engineering experiment station. Bulletin no.36.

Farm shop. By C.H. Christopherson. H.B. White and L.W. Neubauer.
St. Paul, Minn., 1937. 16p. University of Minnesota. Agricultural extension division. Special bulletin 190.

Fences.

Practical pointers on fence construction. Better Farm Equipment and Methods. v.10, no.8. April, 1938. p.8-9.

Fences, Electric.

Electric fence. By W.C. Harrington. Amherst, Mass., 1938. 3p.
Mimeographed. Massachusetts state college. Engineering extension series no.64.

Electric fence hazards. By L.W. Neubauer. Farm Implement News.
v.59, no.7. April 7, 1938. p.38-39.

Fertilizer Placement.

Methods of applying fertilizer. Recommendations of the National joint committee on fertilizer application. Washington, D.C., National Fertilizer Association, 1938. 15p.

Placement of fertilizer for cotton. By E.R. Collins, H.B. Mann, and G.A. Cumings. Raleigh, N.C., 1938. 38p. Bibliography. North Carolina state college of agriculture and engineering. Agricultural experiment station. Bulletin no.318.

Flax.

Flax migrates to California. California Cultivator. v.85, no.7.
March 26, 1938. p.212-213.

New billion-dollar crop. Popular Mechanics. v.69, no.2. February, 1938. p.238-239, 144A-145A. Discussion of the growth of flax.

Paper from flax and hemp. By H.H. Straus. Farm chemurgic journal.
v.1, no.1. September, 1937. p.32-37.

Floods and Flood Control.

Flood control research at Cornell University. Science. v.87, no.2254.
March 11, 1938. p.229-230. Research in proceeding in two major directions: problems in channel improvement, construction of check dams and other water control measures; and studies of foundation conditions and suitable materials for earth embankments and earth dams where needed.

Floods and Flood Control. (Cont'd)

Floods of March 1936. Part 3. Potomac, James, and Upper Ohio rivers. Washington, U.S. Govt. print. off., 1937. 351p. Processed. U.S. Geological survey. Water-supply paper 800.

Mississippi control works tested by flood. By J.L. Schley. Engineering News-Record. v.120, no.15. April 14, 1938. p.533-537. Points out how well system stood tests, and notes some minor weaknesses.

National aspects of flood control - a symposium: Discussion. By Franklin F. Snyder. Proceedings of American Society of Civil Engineers. v.64, no.4. Two parts - part 1. April, 1938. p.798-801.

Navigation and flood control at Gilbertsville. By Carl A. Bock. Engineering News-Record. v.120, no.14. April 7, 1938. p.497-500. Key element of Tennessee River control, Gilbertsville dam would provide great flood-control benefits and open up an extensive waterway network.

Sixteen years of flood control in Miami Valley. By C.H. Eiffert and C.S. Bennett. Civil Engineering. v.8, no.5. May, 1938. p.343-345.

Floors.

Sanitary dairy barn floors. Indiana Farmers Guide. v.94, no.8. April 9, 1938. p.15. Floors of concrete are water-tight and non-absorbent; they disinfect easily and thoroughly. Their smooth, hard surfaces are easily kept clean and do not retain stable odors that might taint the milk. These advantages, together with durability and economy of concrete account for its general popularity as a flooring material in dairy barns.

Forage Plants.

Alfalfa - the coming ensilage. By F.W. Duffee. Farm Implement News. v.59, no.8. April 21, 1938. p.34-35.

Forage crop engineering. By H.H. Tucker. Farmer's Digest. v.1, no. 11. March, 1938. p.1-10. Artificially dehydrated hay. Dry hay chopping. Hay silage making.

Heating.

Heating and ventilating requirements for housing. By C.E.A. Winslow. Heating & Ventilating. v.35, no.3. March, 1938. p.33-35. Summary of standards and methods in heating and ventilating for housing. Paper is abstracted from one which author presented before symposium on hygiene of housing at recent annual meeting of American Public Health Association in New York.

Heating. (Cont'd)

Oil burner ordinances. I. Suggested ordinances regulating oil burning equipments and oil storage in connection therewith. II. Suggested ordinance regulating stove or range oil burners and oil storage in connection therewith. 1937. Adopted by National fire protection association and National board of fire underwriters. Boston, Mass., National fire protection association, 1937. 14p.

Regulations of the National board of fire underwriters for the installation of oil burning equipments as recommended by the National fire protection association effective April 1, 1934. New York, National board of fire underwriters, 1936. 17p.

Study of the oil burner as applied to domestic heating. By Arthur H. Senner. Washington, U.S. Govt. print. off., 1938. 44p. U.S. Department of agriculture. Technical bulletin no.109.

Hotbeds.

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Motor Fuel. (Cont'd)

having highest practical compression ratio will, on basis of tabulated figures, cost only about \$25.00 per year more under tax-free conditions, but \$60.00 per year more if taxed 5 cents per gallon, than when burning distillate. Possible saving of \$60.00 per year will influence many to burn cheaper fuel. Value to be placed on additional power available and on convenience of operation will have to be decided in each case individually. 4. At 1 cent per gallon premium, 70 octane gasoline in engine with 5.5 to 1 compression will cost no more for operation than 55 octane gasoline in engine with 4.8 to 1 compression. 5. It is poor economy to burn gasoline in engine with low compression required for tractor distillate. Not only is fuel consumption high, but horsepower is restricted. When conditions favor use of gasoline engine should be built to burn gasoline most economically. 6. Trend of farm tractor fuels will be determined by purchasers of tractors, and tax situation is a big factor in determining trend.

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Research. (Cont'd)

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Discussion. By Harold K. Palmer and Fred D. Bowlus, and Harry F. Blaney.
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